Textbook Alignment to the Utah Core

| Instructional Materials Evalu | ation Criteria (name and grade | of the core document used to align) | | | |
|--|--|---|----------------------|--|--|
| Pre-Algebra | | | | | |
| Title _ <u>Pre-Algebra © 2008</u> | Fitle _ <u>Pre-Algebra © 2008</u> ISBN# <u>978-0-07-873818-0</u> | | | | |
| Publisher:Glencoe McGra | aw-Hill | | | | |
| Name of Person conducting a | lignment: <u>not available</u> | | | | |
| Overall percentage of coverage | ge of the Utah State Core Curric | culum: <u>98%</u> | | | |
| Standard I: Students will und Percentage of coverage for St | • | ns with rational numbers, including negativ | ve rational numbers. | | |
| Objectives | Indicators | | | | |
| Objective 1: Compute | Compute fluently using all Student Edition: | | | | |
| fluently with understanding | four operations with | 29 #8, #9, 35 #35-#37, 36 #61-#63, | | | |
| and make reasonable | integers, and explain why | 66 #41, 86-90, 93-97, 100-104, 106-110, | | | |
| estimates with rational | the corresponding | 117-118 | | | |
| numbers. | algorithms work. | Algebra Lab 84-85, 92, 99, 105 | | | |
| | | Mid-Chapter Quiz 98 | | | |
| | | Practice Test 119 | | | |
| | | Standardized Test Practice 74 #4 | | | |
| | | Teacher Wraparound Edition: | | | |
| | | AA 119; AE 87, 107; DI 204; FMC 87, | | | |
| | | 94, 101, 107; PA 97; PC 76H, 226H, 178H | | | |

| | b. | Compute fluently using all | Student Edition: |
|-----------------------------|----------|----------------------------|---|
| | | four operations with | 35 #35-#37, 36 #61-#63, 86-90, 93-97, |
| | | rational numbers, | 100-104, 106-110, 117-118, 239-244, |
| | | including negative | 245-249, 250-254, 261 #64-#67, 263-267, |
| | | fractions and decimals, | 282-283, 745, 747-750 |
| | | and explain why the | Algebra Lab 84-85, 92, 99, 105, 208 |
| | | corresponding algorithms | Mid-Chapter Quiz 256 |
| | | work. | Practice Test 285 |
| | | | Standardized Test Practice 74 #4, #6 |
| | | | Teacher Wraparound Edition: |
| | | | AA 119; DI 204; PC 178H, 226H; |
| | | | TNT 87, 252 |
| | c. | Check the reasonableness | Student Edition: |
| | | of results using | 28 #3, 41 #58, 47 #60, 88 #5, 89 #41, |
| | | estimation. | 154 #3, 215 #3, 250, 265 #4, 329 #3, |
| | | | 331 #43, 343-347, 352, 467 #29, #30, |
| | | | 610-611, 744, 746, 752 |
| | | | Practice Test 173 #21 |
| | | | Standardized Test Practice 120 #4 |
| | | | Study Tip 148, 240, 264, 322, 333 |
| | | | Teacher Wraparound Edition: |
| | <u> </u> | | DI 328; FMC 27 |
| Objective 2: Analyze | a. | 1 | Student Edition: |
| relationships among | | rational numbers in | 78-82, 117, 209-213, 216, 230-232, |
| rational numbers, including | | various forms, including | 237 #42-#49, 238 #56, 258, 259, |
| negative rational numbers, | | scientific notation | 272 #55-#58, 315, 324 #4, 327, 470, 742 |
| and operations involving | | (positive and negative | Mid-Chapter Quiz 98 #6, #7 |
| these numbers. | | exponents), with and | Practice Test 119, 223 |
| | | without a number line. | Standardized Test Practice 354, 415 #9 |
| | | | Teacher Wraparound Edition: |
| | | | AE 79; COI 79; CON 216; DI 80; |
| | | | FMC 226E, 231; PA 233 |

| b. Predict the effect of operating with fractions, decimals, percents, and integers as an increase or a decrease of the original value. | Student Edition: 52 #26, #27, 94 #3, 101 #3, 102 #11, 207 #52, 232 #41-#42, 332-336, 338-342, 352, 799 #13 Cross-Curricular Project 177 Practice Test 353 Spreadsheet Lab 337 Standardized Test Practice 120 #4, 174 #3, 355 #12 Teacher Wraparound Edition: AE 339; FMC 340; PA 66, 83, 97, 104 | |
|---|--|--|
| c. Recognize and use the identity properties of addition and multiplication, the multiplicative property of zero, the commutative and associative properties of addition and multiplication, and the distributive property of multiplication over addition. | Student Edition: 43-47, 71, 90 #50, #51, 102 #4, 103 #58, 124-128, 133 #62-#65 Algebra Lab 85 Practice Test 73 #5-#7 Standardized Test Practice 75 #9 Teacher Wraparound Edition: AE 125; FMC 24F, 45, 126; PA 128; PC 24H | |
| d. Recognize and use the inverse operations of adding and subtracting a fixed number, multiplying and dividing by a fixed number, and computing squares of whole numbers and taking square roots of perfect squares. | Student Edition: 88-89, 94-95, 245-249, 464-468, 504, 781, 802 Algebra Lab 462-463 Practice Test 508 Teacher Wraparound Edition: A 463; FMC 94, 107; PA 244; T 462 | |

| Objective 3: Solve | a. | Recognize the absolute | Student Edition: | |
|------------------------------|----|----------------------------|--|--|
| problems involving rational | | value of a rational number | 78-83, 90 #55, 117 | |
| numbers using addition, | | as its distance from zero. | Key Concepts 116 | |
| subtraction, multiplication, | | | Teacher Wraparound Edition: | |
| and division. | | | AE 79; FMC 76E | |
| | b. | Evaluate numeric | Student Edition: | |
| | | expressions, including | 32-37, 41 #52-#57, 53 #43-#46, 70, | |
| | | those with whole number | 109 #30-#31, 181 #2 | |
| | | exponents and absolute | Mid-Chapter Quiz 48 #5-#10 | |
| | | values using the order of | Vocabulary Check 69 #4 | |
| | | operations. | Teacher Wraparound Edition: | |
| | | | FMC 33; PA 30 | |
| | c. | Solve problems involving | Student Edition: | |
| | | rational numbers, | 88 #5, 94 #3, 109, 231 #6, 240 #4, 247 #5, | |
| | | percents, and proportions. | 254 #57, 265 #4, 302-306, 315 #6, 349, | |
| | | | 798 #9, 799 #7-#10 | |
| | | | Practice Test 119 #13, 353 #20 | |
| | | | Standardized Test Practice 120 #3, | |
| | | | 224 #4, 286 #2, 355 #12, 415 #7 | |
| | | | Teacher Wraparound Edition: | |
| | | | AE 240; PA 97 | |

Standard II: Students will use the language of algebra to analyze and represent relationships, including real-world relationships.

Percentage of coverage for Standard II: 100%

| Objectives | Indicators | If covered, appropriate page #'s | Comments on coverage |
|----------------------------|-----------------------------|---|----------------------|
| Objective 1: Generalize | a. Compare representations | Student Edition: | |
| and express patterns using | of a relation using tables, | 29 #8-#9, 35 #38-#39, 51 #8-#9, | |
| algebraic expressions. | graphs, algebraic symbols, | 139 #30-#31, 154 #3, 159 #3, 207 #52, | |
| | and mathematical rules. | 209, 213 #75-#76, 359-363, 365-369, 409 | |
| | | Algebra Lab 208, 358 | |
| | | Teacher Wraparound Edition: | |
| | | AE 361; PA 363 | |

| | b. | Describe simple patterns | Student Edition: | |
|------------------------------|----|-----------------------------|---|---|
| | | using a mathematical rule | 29, 36 #55-#60, 101, 181, 203, 209 | |
| | | or algebraic expression. | Algebra Lab 208, 358 | |
| | | | Practice Test 173 #23 | |
| | | | Standardized Test Practice 75 #7, 120 #6, | |
| | | | 174 #4, 224 #6, 456 #4 | |
| | c. | Create and extend simple | Student Edition: | |
| | | numeric and visual | 27-30, 36 #55-#60, 53 #47, 70, 77, | |
| | | patterns. | 103 #56, 158-161, 167 #45-#46, 172, 180, | |
| | | | 297-300 | |
| | | | Mid-Chapter Quiz 48 #1, 319 #6-#7 | ` |
| | | | Practice Test 173 #23 | |
| | | | Standardized Test Practice 224 #6 | |
| | | | Teacher Wraparound Edition: | |
| | | | AE 27, 159 | |
| Objective 2: Evaluate, | a. | Evaluate algebraic | Student Edition: | |
| simplify, and solve | | expressions, including | 37-41, 47 #55-#58, 53 #48-#51, | |
| algebraic expressions, | | those with whole number | 59 #63-#66, 66 #38-#40, 71, 157 #39-#42 | |
| equations, and inequalities. | | exponents, when given | Mid-Chapter Quiz 48 | |
| | | values for the variable(s). | Practice Test 73 | |
| | | | Spreadsheet Lab 42 | |
| | | | Teacher Wraparound Edition: | |
| | | | A 41; AE 38; DI 38 | |
| | b. | 1 5 6 | Student Edition: | |
| | | expressions using the | 45, 46 #38-#46, 53 #37-#40, 66 #37, 71, | |
| | | properties of algebra. | 126, 129-133, 140 #45-#50, 151 #60-#65, | |
| | | | 170 | |
| | | | Mid-Chapter Quiz 48 #21-#25, 146 #3-#6 | |
| | | | Practice Test 173 #3-#6 | |
| | | | Teacher Wraparound Edition: | |
| | | | AE 45, 130; FMC 131 | |

| | c. | Solve single-variable linear equations and inequalities, including those that must be simplified on one side or those with variables on both sides of an equation. | Student Edition: 136-140, 141-145, 147-151, 170, 171, 417 #1-#6, 420-423, 424-428, 435-439, 441-445, 446-450, 452-454 Algebra Lab 418-419 Mid-Chapter Quiz 146 #11-#14, 440 Practice Test 173 #8-#19, 455 Standardized Test Practice 457 #14 Teacher Wraparound Edition: AE 137, 421, 426, 436; DI 421; FMC 137; PA 145 | ` |
|--|----|--|---|---|
| Objective 3: Represent relationships using graphs, tables, and other models. | a. | Identify approximate rational coordinates when given the graph of a point on a rectangular coordinate system. | Student Edition: 54-59, 72, 111-115, 118 Practice Test 119 #28 Standardized Test Practice 121 #12 | |
| | b. | • | Student Edition: 54-59, 72, 111-115, 118 Practice Test 73 #11-#13, 119 #29-#32 Standardized Test Practice 75 #12, 121 #12 Teacher Wraparound Edition: AE 55 | |
| | c. | Graph linear equations using ordered pairs or tables. | Student Edition: 113 #3, 367 #3, 368-369, 409 Mid-Chapter Quiz 382 #8-#9 Practice Test 413 #4-#5 Standardized Test Practice 414 #1 Teacher Wraparound Edition: AE 366; PA 59, 115 | |

| | prol tabl mar pict | odel real-world oblems using graphs, les, equations, nipulatives, and tures and identify raneous information. | Student Edition: 26, 61, 63 #3, 94 #3, 111, 133 #67, 159 #3, 245, 253 #51-#55, 271 #32-#33, 651-656, 693 Cross-Curricular Project 23, 177, 459, 623 Mid-Chapter Quiz 98 #25, 658 #13-#16 Practice Test 73 #16 | |
|---|-----------------------------|---|---|--|
| | | | Standardized Test Practice 74 #1, 75 #13 Teacher Wraparound Edition: AA 507; AE 51; FMC 653; PA 66, 312, 369 | |
| Objective 4: Model and illustrate meanings of ratios, percents, and decimals. | dete | mpare ratios to ermine if they are nivalent. | Student Edition: 292-296, 300 #26-#27, 312 #20, #21, 324 #4, 349 Reading Math 301 Teacher Wraparound Edition: DI 303; I 290E | |
| | unit | mpare ratios using the t rate. | Student Edition: 292-296, 306 #42-#43, 309 #1, 349, 375 #24, 799 #1 Mid-Chapter Quiz 319 #2 Practice Test 353 #1-#3 Teacher Wraparound Edition: FMC 290H, 293 | |
| | ratio deci | cognize percents as os based on 100 and cimals as ratios based powers of ten. | Percents as ratios based on 100 are addressed on the following pages: Student Edition: 313, 322-326 Algebra Lab 320-321 Teacher Wraparound Edition: PA 318; PC 290H | |

| | al | Descenies along of a live | | |
|-----------------------------|----------|--|--|---|
| | a. | Recognize slope of a line as the constant ratio of the | C414 T-3!4! | |
| | | | Student Edition: | |
| | | vertical change to the | 384-389, 410 | |
| | | horizontal change in a line | Algebra Lab 383 | |
| | | using similar triangles. | | |
| | e. | Graph proportional | C4 1 4 Fe P4* | |
| | | relationships and identify | Student Edition: | |
| | | the unit rate as the slope | 379 #2, 394 #37 | |
| Ohio Airo E. Coloro a reido | <u> </u> | of the related line. | C4 14 T- 1242 | |
| Objective 5: Solve a wide | a. | Set up and solve problems | Student Edition: | |
| variety of problems using | | involving proportional | 297-300, 302-306, 308-312, 322-326, | |
| ratios and proportional | | reasoning using variables. | 349-350, 799 | |
| reasoning. | | | Algebra Lab 307 | |
| | | | Mid-Chapter Quiz 319 #10 Standardized Test Practice 354 #1 | |
| | | | 1 | |
| | | | Teacher Wraparound Edition: AE 298, 303; FMC 303, 309 | |
| | h | Solve percent problems | Student Edition: | |
| | b. | including problems | 329 #3, 333 #4, 334 #5, 338-342 | |
| | | involving discounts, | Spreadsheet Lab 337 | |
| | | interest, taxes, tips, and | Standardized Test Practice 355 #12, | |
| | | percent increase or | 415 #8 | |
| | | decrease. | Teacher Wraparound Edition: | |
| | | decrease. | AE 334, 339 | |
| | c. | Solve ratio and rate | Student Edition: | |
| | | problems using informal | 292-296, 349 | |
| | | methods. | Mid-Chapter Quiz 319 #2 | ` |
| | | | Teacher Wraparound Edition: | |
| | | | FMC 293 | |
| | d. | Identify similar figures | Student Edition: | |
| | | based on proportionality. | 497-502, 506, 608-612, 618 | |
| | | | Standardized Test Practice 620 #4 | |
| | | | Teacher Wraparound Edition: | |
| | | | AE 498, 499, 609; FMC 609 | |

| | e. Find missing lengths of | Student Edition: | |
|---|-----------------------------|-----------------------------------|--|
| | similar plane figures, | 497-502, 506, 608-612, 618 | |
| | including inaccessible | Standardized Test Practice 620 #4 | |
| | lengths, using proportions. | Teacher Wraparound Edition: | |
| | | AA 507; FMC 609 | |
| Standard III. Students will understand and apply measurement tools and formulas | | | |

Percentage of coverage for Standard III: 100%

| Objectives | Indicators | If covered, appropriate page #'s | Comments on coverage |
|------------------------------|-------------------------------|--|----------------------|
| Objective 1: Apply the | a. Convert units of measure | Student Edition: | |
| properties of | within the same system. | 58 #37-#40, 144 #40-#42, 199 #30, | |
| proportionality of different | | 243 #51-#62, 294 #4, 295 #31-#38, | |
| units of measure. | | 304 #3, 587 #26-#28, #30, #31, 753-755 | |
| | | Cross-Curricular Project 177 | |
| | | Practice Test 223 #20 | |
| | | Teacher Wraparound Edition: | |
| | | PA 588 | |
| | b. Create and interpret scale | Student Edition: | |
| | drawings and approximate | 308-312, 326 #42, 350, 497-502 | |
| | distance on maps using | Mid-Chapter Quiz 319 #13, #14 | |
| | properties of similarity. | Practice Test 507 #20 | |
| | | Teacher Wraparound Edition: | |
| | | AE 309, 310, 499; DI 309; FMC 309; | |
| | | PA 312; T 497 | |
| | c. Solve problems using | Student Edition: | |
| | scale factors. | 308-312, 326 #42, 350, 499-501 | |
| | | Mid-Chapter Quiz 319 #14 | ` |
| | | Teacher Wraparound Edition: | |
| | | AE 499; PA 312 | |
| | d. Create and interpret scale | Student Edition: | |
| | drawings. | 310 #3, 312 #22, 501 #17-#23 | |
| | | Teacher Wraparound Edition: | |
| | | AE 499; PA 312 | |

| Objective 2: Derive | a. | Derive formulas for and | Student Edition: |
|----------------------------|----|-----------------------------|--|
| formulas for surface areas | a. | calculate surface area and | 583-588, 597-601, 616, 617 |
| and volume of three | | volume of right prisms | Geometry Lab 596 |
| | | 5 1 | |
| dimensional shapes. | | and cylinders using | Teacher Wraparound Edition: |
| | | appropriate units. | AA 619; DI 584; PC 572H; TNT 585 |
| | b. | Explain that if a scale | |
| | | factor describes how | |
| | | corresponding lengths in | |
| | | two similar objects are | Student Edition: |
| | | related, then the square of | 312 #22, 497-498, 501, 506 |
| | | the scale factor describes | Geometry Lab 607 |
| | | how corresponding areas | Teacher Wraparound Edition: |
| | | are related and the cube of | I 498; PA 502; T 497 |
| | | the scale factor describes | |
| | | how corresponding | |
| | | volumes are related. | |
| | c. | Find lengths, areas, and | Student Edition: |
| | | volumes of similar | 308-312, 350, 497-502, 802 #11 |
| | | figures, using the scale | Practice Test 507 #20 |
| | | factor. | Teacher Wraparound Edition: |
| | | | AE 498, 499; I 498 |
| | d. | Select appropriate two- | Student Edition: |
| | | and three-dimensional | 480 #29-#32, 489 #40, #41, 505 #28, |
| | | shapes to model real- | 515 #4, 516 #29, 521 #5, 529 #20, 535, |
| | | world objects and solve a | 542, 565 #16, 579 #17, 580 #20-#21, 587, |
| | | variety of problems | 599-601 |
| | | involving surface areas | Cross-Curricular Project 459 |
| | | and volumes of cylinders | Mid-Chapter Quiz 537 |
| | | and prisms. | Teacher Wraparound Edition: |
| | | • | AE 585, 599; PA 588 |

Standard IV: Students will apply concepts and methods from statistics and probability to solve real problems.

Percentage of coverage for Standard IV: 89%

| Objectives | Indicators | If covered, appropriate page #'s | Comments on coverage |
|---|--|---|----------------------|
| Objectives Objective 1: Formulate questions and answer the questions by organizing and analyzing data. | a. Formulate questions that can be answered through data collection and analysis. | Student Edition: 325 #25, #26, 363 #37, 369 #46, 374 #11, 405 #7-#9, 628 #6-#7, 648 #21 Algebra Lab 60, 208, 273, 307 Cross-Curricular Project 23, 177, 623 Graphing Calculator Lab 643 Teacher Wraparound Edition: PA 642, 649 | Comments on coverage |
| | b. Determine the 25th and 75th percentiles (1st and 3rd quartiles) to obtain information about the spread of data. c. Graphically summarize data of a single variable using histograms and box and whisker plots. | Student Edition: 634, 636, 691 Practice Test 695 #7 Teacher Wraparound Edition: A 642; AE 634; PA 637 Student Edition: 638-642, 644-649 Graphing Calculator Lab 643, 650 Teacher Wraparound Edition: AE 639, 640 | ` |
| | d. Compute the mean and median of a numerical characteristic and relate these values to the histogram of the data. | Student Edition: 645 #28, 648 #21 Teacher Wraparound Edition: PA 649 | |

| | e. | Use graphical representations and numerical summaries to answer questions and interpret data. | Student Edition: 61, 63, 65, 127 #45-#47, 213 #75, #76, 271 #32, #33, 325, 346 #11, 628 #7, 635 #5, 648 #21 Algebra Lab 273 Cross-Curricular Project 23, 177, 289, 459, 623 Standardized Test Practice 287 #10 | |
|--|----|--|--|--|
| | | | Teacher Wraparound Edition: DI 652; PA 642; T 61 | |
| Objective 2: Calculate probabilities of events and compare theoretical and experimental probability. | a. | Calculate the probability of an event mathematically using models and the Fundamental Counting Principle. | Student Edition: 665-669, 670-674, 693 Teacher Wraparound Edition: DI 671 | |
| | | Recognize that the sum of the probability of an event and the probability of its complement is equal to one. | This objective can be met in Glencoe's <i>Mathematics: Applications and Concepts Course 3</i> © 2006 page 375 | |
| | c. | Make approximate predictions using theoretical probability and proportions. | Theoretical probability is met on the following pages: Student Edition: 666-669 Teacher Wraparound Edition: AE 667 Probability preparation is met in Glencoe's Mathematics: Applications and Concepts Course 3 © 2006 page 401. | |

| d. | actual or theoretical probability of an event as | Student Edition: 667 #4, 668 #22 Graphing Calculator Lab 681 Teacher Wraparound Edition: | |
|----|--|--|--|
| | the number of trials | FMC 667; T 675 | |
| | increases. | | |